



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • www.aqmd.gov

April 4, 2008

Mr. Uve Sillat  
Southern California Edison  
2244 Walnut Grove Ave.  
Rosemead, CA 91770

RE: SCE, Mira Loma, ID# 51003  
Title V De Minimis Significant Permit Revision

Dear Mr. Sillat:

Please find attached the revised version of your Facility Permit, for equipment located at 13568 Milliken Ave., Ontario, CA 91761. The revised permit reflects the approval of your applications requesting modifications to the permit conditions pertaining to allowable emissions and fuel use for the turbine and allowable operating time for the diesel engines. The corresponding application numbers are summarized in the table below:

A/N	Description	Device ID#
470513	Gas turbine	D1
470515	Emergency IC engine D8	D8
470512	Emergency IC engine D7	D7
470511	Title V De-minimis Revision	//////////

The applications were sent to EPA for a 45 day review. The review period has ended and no comments were received.

Note that the engines have been included in Section D while the turbine remains in Section H. Insert the enclosed Sections D and H into your Facility Permit and discard the earlier versions. Questions concerning changes to your permit should be directed to Mr. Chris Perri at (909) 396-2696.

Sincerely,

*Michael D. Mills*

Michael D. Mills, P.E.  
Senior Manager  
General Commercial & Energy Team  
Engineering & Compliance

MM:JTY:CGP

Cc: Gerardo Rios, USEPA (R9AirPermits\_SC@epa.gov)  
Roger Christopher, Compliance  
Energy Unit Files  
Records

SCE Mira Loma De Minimis

*Cleaning the air that we breathe*



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
21865 Copley Drive, Diamond Bar, CA 91765

Title Page  
Facility I.D.#: 051003  
Revision #: 1  
Date: April 04, 2008

## FACILITY PERMIT TO OPERATE

**SO CAL EDISON CO  
13568B MILLIKEN AVE  
ONTARIO, CA 91761**

### NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Barry R. Wallerstein, D. Env.  
EXECUTIVE OFFICER

By Mike Mills for  
Mohsen Nazemi, P.E.  
Deputy Executive Officer  
Engineering & Compliance



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

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B	RECLAIM Annual Emission Allocation	0	04/03/2007
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D	Facility Description and Equipment Specific Conditions	1	04/04/2008
E	Administrative Conditions	0	04/03/2007
F	RECLAIM Monitoring and Source Testing Requirements	0	04/03/2007
G	Recordkeeping and Reporting Requirements for RECLAIM Sources	0	04/03/2007
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## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : POWER GENERATION</b>					
<b>System 2 : EMERGENCY IC ENGINE</b>					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, DETROIT DIESEL, MODEL 8063-7305 (6V-92T), TURBOCHARGED, 230 KW, 370 BHP A/N: 470515	D7				C1.5, C177.1, D12.6, E193.3, K67.3
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, CUMMINS, MODEL QST30-G5, TURBOCHARGED AND AFTERCOOLED, 1000 KW A/N: 470512	D8				C1.6, D12.6, E193.3, K67.4
<b>Process 2 : MISCELLANEOUS SYSTEMS</b>					
<b>System 1 : GASOLINE FUELING</b>					
STORAGE TANK, FIXED ROOF, SUBMERGED FILL TUBE, WITH A P/V RELIEF VALVE, CONCRETE INSULATION, ABOVEGROUND, 8000 GALS; WIDTH: 7 FT 11 IN; HEIGHT: 7 FT 1 IN; LENGTH: 20 FT 11 IN WITH A/N: 357338  COMPARTMENT, GASOLINE, EQUIPPED WITH PHASE I, 4000 GALS  COMPARTMENT, DIESEL FUEL, NO PHASE I, 4000 GALS	D10				D330.1, H23.1, J109.1, J110.1, J373.1

- \* (1)(1A)(1B) Denotes RECLAIM emission factor  
(3) Denotes RECLAIM concentration limit  
(5)(5A)(5B) Denotes command and control emission limit  
(7) Denotes NSR applicability limit  
(9) See App B for Emission Limits  
(2)(2A)(2B) Denotes RECLAIM emission rate  
(4) Denotes BACT emission limit  
(6) Denotes air toxic control rule limit  
(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)  
(10) See Section J for NESHAP/MACT requirements
- \*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.



**FACILITY PERMIT TO OPERATE  
SO CAL EDISON CO**

**SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 2 : MISCELLANEOUS SYSTEMS</b>					
FUEL DISPENSING NOZZLE, BALANCE TYPE PHASE II CONTROL A/N: 357338	D13				
<b>System 2 : RULE 219 EXEMPT EQUIPMENT SUBJECT TO SOURCE SPECIFIC RULES</b>					
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E14			VOC: (9) [RULE 1113,11-8-1996;RULE 1113,6-9-2006;RULE 1171,11-7-2003;RULE 1171,7-14-2006]	K67.5
RULE 219 EXEMPT EQUIPMENT, EXEMPT HAND WIPING OPERATIONS	E15			VOC: (9) [RULE 1171,11-7-2003;RULE 1171,7-14-2006]	K67.5
RULE 219 EXEMPT EQUIPMENT, REFRIGERATION UNITS	E16				H23.2, K67.5

\* (1)(1A)(1B) Denotes RECLAIM emission factor

(3) Denotes RECLAIM concentration limit

(5)(5A)(5B) Denotes command and control emission limit

(7) Denotes NSR applicability limit

(9) See App B for Emission Limits

(2)(2A)(2B) Denotes RECLAIM emission rate

(4) Denotes BACT emission limit

(6) Denotes air toxic control rule limit

(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)

(10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.



**FACILITY PERMIT TO OPERATE  
SO CAL EDISON CO**

**SECTION D: DEVICE ID INDEX**

**The following sub-section provides an index  
to the devices that make up the facility  
description sorted by device ID.**



**FACILITY PERMIT TO OPERATE  
SO CAL EDISON CO**

**SECTION D: DEVICE ID INDEX**

Device Index For Section D			
Device ID	Section D Page No.	Process	System
D7	1	1	2
D8	1	1	2
D10	1	2	1
D13	2	2	1
E14	2	2	2
E15	2	2	2
E16	2	2	2



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

The operator shall comply with the terms and conditions set forth below:

#### **DEVICE CONDITIONS**

#### **C. Throughput or Operating Parameter Limits**

C1.5 The operator shall limit the operating time to no more than 100 hour(s) in any one year.

The 100 hours per year limit may include up to a 20 hours per year operating time to maintain engine readiness.

[RULE 1110.2, 6-3-2005; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1401, 3-4-2005; RULE 1470, 11-3-2005]

[Devices subject to this condition : D7]

C1.6 The operator shall limit the operating time to no more than 100 hour(s) in any one year.

The 100 hours per year limit may include up to 20 hours per year operating time to maintain engine readiness.

[RULE 1110.2, 6-3-2005; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1401, 3-4-2005; RULE 1470, 11-3-2005]

[Devices subject to this condition : D8]

C177.1 The operator shall set and maintain the fuel injection timing of the engine at 3 degrees retarded relative to production timing.

Retarded timing shall be as established by Detroit Diesel in product announcement 'Injection Timing Retard Instructions for Conformance with the SCAQMD's General Permit Registration Program, 6V-92T Generator Set Engine Model 9063-7305

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D7]

#### **D. Monitoring/Testing Requirements**





## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

The operator shall comply with the terms and conditions set forth below:

- D12.6 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the engine.

[RULE 1110.2, 6-3-2005; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1401, 3-4-2005]

[Devices subject to this condition : D7, D8]

- D330.1 The operator shall have a person that has been trained in accordance with Rule 461(d)(5) conduct a semi-annual inspection of the gasoline transfer and dispensing equipment. The first inspection shall be in accordance with Rule 461, Attachment B, the second inspection shall be in accordance with Rule 461, Attachment C, and the subsequent inspections shall alternate protocols. The operator shall keep records of the inspection and the repairs in accordance to Rule 461 and Section K of this Permit.

[**RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997**]

[Devices subject to this condition : D10]

### **E. Equipment Operation/Construction Requirements**

- E193.3 The operator shall operate and maintain this equipment according to the following specifications:

Operation beyond the 20 hours per year allotted for engine maintenance and testing shall be allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage, provided that (a) the utility distribution company has ordered rotating outages in the control area where the engine is located or it has indicated that it expects to issue such an order at a given time, and

(b) the engine is located in a utility service block that is subject to the rotating outage. Engine operation shall be terminated immediately after the utility distribution company advises that a rotating outage is no longer imminent or in effect.

[RULE 1110.2, 6-3-2005; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1401, 3-4-2005]

[Devices subject to this condition : D7, D8]

### **H. Applicable Rules**



**FACILITY PERMIT TO OPERATE  
SO CAL EDISON CO**

**SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

The operator shall comply with the terms and conditions set forth below:

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	461

**[RULE 461, 6-3-2005]**

[Devices subject to this condition : D10]

H23.2 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Refrigerants	40CFR82, SUBPART	F

[Devices subject to this condition : E16]

**J. Rule 461**

J109.1 The operator shall use, except for diesel transfer, the phase I vapor recovery system in full operation whenever this equipment is in use. This system shall be installed, operated and maintained to meet all CARB certification requirements.

**[RULE 461, 6-3-2005]**

[Devices subject to this condition : D10]



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

The operator shall comply with the terms and conditions set forth below:

- J110.1 The operator shall use, except for diesel transfer, the phase II vapor recovery system in full operation whenever gasoline from this equipment is dispensed to motor vehicles as defined in Rule 461. This system shall be installed, operated and maintained to meet all CARB certification requirements.

**[RULE 461, 6-3-2005]**

[Devices subject to this condition : D10]



## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

J373.1 The operator shall comply with the following gasoline transfer and dispensing requirements:

a). The Phase II vapor recovery systems shall be installed, operated, and maintained such that the maximum allowable pressure through the system including nozzle, vapor hose, swivels, and underground piping does not exceed the dynamic back pressures described by the California Air Resources Board (CARB) Executive Order by which the system was certified:

Nitrogen Flowrates (CFH)      Dynamic Back Pressure (Inches of Water)

20                                      0.15

40                                      0.16

60                                      0.35

80                                      0.62

100                                     0.95

b), dynamic back pressure tests shall be conducted to determine the Phase II system vapor recovery back pressures. The tests shall be conducted in accordance with CARB Test Procedure Method TP-201.4. Results shall be submitted to the AQMD, Engineering and Compliance, within 48 hours of tests.

The AQMD shall be notified by e-mail at [R461testing@aqmd.gov](mailto:R461testing@aqmd.gov) or by facsimile at telephone number (909) 396-3606 at least seventy two (72) hours prior to testing. Such notification shall include the name of the owner or operator; the name of the contractors; the location of the facility; and the scheduled start and completion dates of the dynamic back pressure test.

The test shall be conducted as frequently as that required by the most recent amendment to Rule 461 or CARB Executive Order requirements, whichever is more stringent.

c). At least seventy-two (72) hours prior to back-filling any underground storage tank or piping, the SCAQMD shall be notified by e-mail at [r461backfill@aqmd.gov](mailto:r461backfill@aqmd.gov) or by facsimile at telephone number (909) 396-3606. Such notification shall include the name of the owner or operator; the name of the contractors; the location of the facility; and the scheduled start and completion dates of the back-filling procedure. The backfilling procedure shall not commence until inspected by a District representative.

d). A pressure integrity test of the drop tube/drain valve assembly shall be conducted as a reverification test to quantify the pressure integrity of both the drop tube and drain valve seal. The test shall be conducted in accordance with the test procedure method outlined in exhibit 5 of CARB Executive Order VR-101-B. Results shall be submitted to the AQMD, Engineering and Compliance, within forty-eight (48) hours of the test.

The AQMD shall be notified by e-mail at [r461testing@aqmd.gov](mailto:r461testing@aqmd.gov) or by facsimile at (909) 396-3606 at least 72 hours prior to testing. Such notification shall include the name of the owner or operator; the name of the contractor; the location of the facility; and the scheduled start and completion dates of the pressure integrity



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

The operator shall comply with the terms and conditions set forth below:

test of drop tube/drain assembly.

e). A static torque test of rotatable Phase I adaptors shall be conducted as a reverification test to quantify the amount of static torque required to start rotation of the rotatable Phase I adaptors. The test shall be conducted in accordance with the test procedure method outlined in exhibit 4 of CARB Executive Order VR-101-B. Results shall be submitted to the AQMD, Engineering and Compliance, within forty-eight (48) hours of the test.

The AQMD shall be notified by e-mail at [r461testing@aqmd.gov](mailto:r461testing@aqmd.gov) or by facsimile at (909) 396-3606 at least 72 hours prior to testing. Such notification shall include the name of the owner or operator; the name of the contractor; the location of the facility; and the scheduled start and completion dates of the static torque test of rotatable Phase I adaptors.

f). As required by AQMD Rule 461 or CARB Executive Order, a static pressure leak decay test shall be conducted to demonstrate that the storage tanks, the remote and/or nozzle vapor recovery check valves, associated vapor return piping and fittings are free from vapor leaks. The test shall be conducted in accordance with CARB Test Procedure Method TP-201.3. Results shall be submitted to the AQMD, Engineering and Compliance, within forty-eight (48) hours of the test.

The AQMD shall be notified by e-mail at [R461testing@aqmd.gov](mailto:R461testing@aqmd.gov) or by facsimile at telephone number (909) 396-3606 at least seventy-two (72) hours prior to testing. Such notification shall include the name of the owner or operator; the name of the contractors; the location of the facility; and the scheduled start and completion dates of the static pressure leak decay test.

g). If the CARB Executive Order requires the installation of a liquid removal device, a liquid removal rate test shall be conducted to demonstrate the removal of gasoline from the vapor passage of the coaxial hose. The test shall be conducted within thirty days of initial installation and in accordance with CARB test procedure Method TP-201.6. Results shall be submitted to the AQMD, Engineering and Compliance, within forty-eight (48) hours of the test.

The AQMD shall be notified by e-mail at [r461testing@aqmd.gov](mailto:r461testing@aqmd.gov) or by facsimile at telephone number (909) 396-3606 at least seventy-two (72) hours prior to testing. Such notification shall include the name of the owner or operator; the name of the contractors; the location of the facility; and the scheduled start and completion dates of the liquid removal rate test.

The testing frequency for the above mentioned tests shall be conducted in accordance with the most recent AQMD Rule 461 amendment or CARB Executive Order requirements, whichever is more stringent. All records and test results that are required to be maintained by Rule 461 shall be kept on site and made available to AQMD representatives upon request.

**[RULE 461, 6-3-2005]**

[Devices subject to this condition : D10]

### **K. Record Keeping/Reporting**



## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

K67.3 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Date of operation, the elapsed time, in hours, and the reason for operation. Records shall be kept and maintained on file for a minimum of two years and made available to district personnel upon request

[RULE 1110.2, 6-3-2005; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1401, 3-4-2005]

[Devices subject to this condition : D7]

K67.4 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Date of operation, the timer reading in hours at the beginning and end of operation, and the reason for operation. Records shall be kept and maintained on file for a minimum of five years and made available to district personnel upon request. The total hours of operation including hours for manual and automatic operation shall be recorded sometime during the first 15 days of January of each year.

[RULE 1110.2, 6-3-2005; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1401, 3-4-2005]

[Devices subject to this condition : D8]

K67.5 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

For architectural applications where no thinners, reducers, or other VOC containing materials are added, maintain semi-annual records for all coating consisting of (a) coating type, (b) VOC content as supplied in grams per liter (g/l) of materials for low-solids coatings, (c) VOC content as supplied in g/l of coating, less water and exempt solvent, for other coatings.

For architectural applications where thinners, reducers, or other VOC containing materials are added, maintain daily records for each coating consisting of (a) coating type, (b) VOC content as applied in grams per liter (g/l) of materials used for low-solids coatings, (c) VOC content as applied in g/l of coating, less water and exempt solvent, for other coatings.

[**RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997**]

[Devices subject to this condition : E14, E15, E16]



## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : POWER GENERATION</b>					
<b>System 1 : GAS TURBINE</b>					
GAS TURBINE, UNIT #1, NATURAL GAS, GENERAL ELECTRIC, MODEL LM6000PC SPRINT, SIMPLE CYCLE WITH WATER INJECTION, 429 MMBTU/HR AT 102 DEG F WITH A/N: 470513 Permit to Construct Issued: 04/01/08	D1	C3 C4 B5		<p>CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; CO: 6 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]</p> <p>NOX: 25 PPMV NATURAL GAS (8A) [40CFR 60 Subpart KKKK,7-6-2006] ; NOX: 2.5 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996</p> <p>RULE 1303(a)(1)-BACT,12-6-2002] ; PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981] ; PM: 11 LBS/HR (5A) [RULE 409,8-7-1981]</p> <p>PM: 0.01 GRAINS/SCF (5B) [RULE 475,10-8-1976;RULE 475,8-7-1978] ; SO2: (9) [40CFR 72 - Acid Rain Provisions,11-24-1997]</p> <p>SOX: 0.06 LBS/MMBTU (8) [40CFR 60 Subpart KKKK,7-6-2006] ; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]</p>	<p>A63.1, A63.2, A63.3, A63.4, A99.1, A99.2, A195.1, A195.2, A195.3, A195.5, A327.1, C1.1, C1.2,</p> <p>C1.3, D12.1, D29.1, D29.2, D29.3, D82.1, E193.1, K40.1, K67.1</p>

- \* (1)(1A)(1B) Denotes RECLAIM emission factor  
(3) Denotes RECLAIM concentration limit  
(5)(5A)(5B) Denotes command and control emission limit  
(7) Denotes NSR applicability limit  
(9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate  
(4) Denotes BACT emission limit  
(6) Denotes air toxic control rule limit  
(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)  
(10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.



## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : POWER GENERATION</b>					
GENERATOR, 45 MW					
CO OXIDATION CATALYST, BASF, 80 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 462005 Permit to Construct Issued: 04/03/07	C3	D1			
SELECTIVE CATALYTIC REDUCTION, MODEL CMHT-21, CORMETECH, 547 CU.FT.; WIDTH: 18 FT; HEIGHT: 25 FT 9 IN; LENGTH: 2 FT 6 IN A/N: 462005 Permit to Construct Issued: 04/03/07	C4	D1		NH3: 5 PPMV (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]	A195.4, D12.2, D12.3, D12.4, E179.1, E179.2, E193.1
STACK, FOR TURBINE #1, HEIGHT: 80 FT; DIAMETER: 13 FT A/N: 470513 Permit to Construct Issued: 04/01/08	B5	D1			
<b>System 2 : EMERGENCY IC ENGINE</b>					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, LEAN BURN, NATURAL GAS, WAUKESHA, MODEL VGF36 GL/GLD, 865 HP WITH A/N: 462004 Permit to Construct Issued: 04/03/07	D6			CO: 185.7 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002] ; NOX: 82.2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996 RULE 1303(a)(1)-BACT,12-6-2002] ; VOC: 84.2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]	C1.4, D12.5, E162.1, E193.1, E193.2, K67.2

- \* (1)(1A)(1B) Denotes RECLAIM emission factor  
(3) Denotes RECLAIM concentration limit  
(5)(5A)(5B) Denotes command and control emission limit  
(7) Denotes NSR applicability limit  
(9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate  
(4) Denotes BACT emission limit  
(6) Denotes air toxic control rule limit  
(8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
(10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.





**FACILITY PERMIT TO OPERATE  
SO CAL EDISON CO**

**SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : POWER GENERATION</b>					
GENERATOR, 645 KW					
<b>System 3 : INORGANIC CHEMICAL STORAGE</b>					
STORAGE TANK, TK-1, AQUEOUS AMMONIA, HORIZONTAL, 10500 GALS A/N: 462001 Permit to Construct Issued: 04/03/07	D9				C157.1, E144.1, E193.1

- \* (1)(1A)(1B) Denotes RECLAIM emission factor  
(3) Denotes RECLAIM concentration limit  
(5)(5A)(5B) Denotes command and control emission limit  
(7) Denotes NSR applicability limit  
(9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate  
(4) Denotes BACT emission limit  
(6) Denotes air toxic control rule limit  
(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)  
(10) See Section J for NESHAP/MACT requirements
- \*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION H: DEVICE ID INDEX**

**The following sub-section provides an index  
to the devices that make up the facility  
description sorted by device ID.**



**FACILITY PERMIT TO OPERATE  
SO CAL EDISON CO**

**SECTION H: DEVICE ID INDEX**

Device Index For Section H			
Device ID	Section H Page No.	Process	System
D1	1	1	1
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## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

#### DEVICE CONDITIONS

##### A. Emission Limits

A63.1 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
NOX	Less than 1556 LBS IN ANY ONE MONTH
PM10	Less than 1487 LBS IN ANY ONE MONTH
CO	Less than 2134 LBS IN ANY ONE MONTH
SOX	Less than 82 LBS IN ANY ONE MONTH
VOC	Less than 423 LBS IN ANY ONE MONTH

#### THIS CONDITION APPLIES AFTER THE COMMISSIONING MONTH ONLY

The operator shall calculate the annual emission limit(s) by using fuel use data and the following emission factors: VOC: 3.13 lbs/mmcf, PM10: 11.03 lbs/mmcf, and SOx: 0.64 lbs/mmcf.

Compliance with the NOx and CO emission limits shall be verified through CEMS data. If NOx and CO CEMS data is not available, NOx and CO emissions shall be calculated using fuel usage and the following factors- NOx: 10.27 lb/mmcf and CO: 15.16 lbs/mmcf during normal operations, and NOx: 7.66 lbs/start, 6.44 lbs/shutdown, CO: 8.58 lbs/start, 7.69 lbs/shutdown.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]



## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A63.2 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
NOX	Less than 3447 LBS IN ANY ONE YEAR
PM10	Less than 1985 LBS IN ANY ONE YEAR
CO	Less than 4393 LBS IN ANY ONE YEAR
SOX	Less than 114 LBS IN ANY ONE YEAR
VOC	Less than 659 LBS IN ANY ONE YEAR

THIS CONDITION APPLIES DURING THE 1ST 12 MONTHS OF OPERATION ONLY.

The operator shall calculate the annual emission limit(s) by using fuel use data and the following emission factors: During commissioning with no control- NOx: 252.35 lb/mmcf; CO: 154.28 lbs/mmcf, VOC: 9.39 lb/mmcf; PM10: 11.03 lbs/mmcf, and SOx: 0.64 lb/mmcf . During commissioning with water injection- NOx: 103.42 lbs/mmcf, all other factors remain the same. During normal operation- VOC: 3.13 lbs/mmcf, PM10: 11.03 lbs/mmcf, and SOx: 0.64 lbs/mmcf

Compliance with the NOx and CO emission limits shall be verified through CEMS data. If NOx and CO CEMS data is not available, NOx and CO emissions shall be calculated using fuel usage and the following factors- NOx: 10.27 lb/mmcf and CO: 15.16 lbs/mmcf during normal operations, and NOx: 7.66 lbs/start, 6.44 lbs/shutdown, CO: 8.58 lbs/start, 7.69 lbs/shutdown

For the purpose of this condition, the yearly emission limit shall be defined as a period of twelve (12) consecutive months determined on a rolling basis with a new 12 month period beginning on the first day of each calendar month.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]



## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A63.3 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
NOX	Less than 5707 LBS IN ANY ONE YEAR
PM10	Less than 4411 LBS IN ANY ONE YEAR
CO	Less than 7728 LBS IN ANY ONE YEAR
SOX	Less than 254 LBS IN ANY ONE YEAR
VOC	Less than 1347 LBS IN ANY ONE YEAR

THIS CONDITION APPLIES AFTER THE 1st 12 MONTHS OF OPERATION.

The operator shall calculate the annual emission limit(s) by using fuel use data and the following emission factors: VOC: 3.13 lbs/mmcf, PM10: 11.03 lbs/mmcf, and SOx: 0.64 lbs/mmcf.

The operator shall calculate the emission limit(s) and compliance with the NOx and CO emission limits shall be verified through CEMS data. If NOx and CO CEMS data is not available, NOx and CO emissions shall be calculated using fuel usage and the following factors- NOx: 10.27 lb/mmcf and CO: 15.16 lbs/mmcf during normal operations, and NOx: 7.66 lbs/start, 6.44 lbs/shutdown, CO: 8.58 lbs/start, 7.69 lbs/shutdown

For the purpose of this condition, the yearly emission limit shall be defined as a period of twelve (12) consecutive months determined on a rolling basis with a new 12 month period beginning on the first day of each calendar month.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]



## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A63.4 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
NOX	Less than 5716 LBS IN ANY ONE MONTH
CO	Less than 7911 LBS IN ANY ONE MONTH
VOC	Less than 1596 LBS IN ANY ONE MONTH
PM10	Less than 5403 LBS IN ANY ONE MONTH
SOX	Less than 311 LBS IN ANY ONE MONTH

#### THIS CONDITION APPLIES DURING THE COMMISSIONING MONTH ONLY

The operator shall calculate the annual emission limit(s) by using fuel use data and the following emission factors: During commissioning with no control- NOx: 252.35 lb/mmcf; CO: 154.28 lbs/mmcf, VOC: 9.39 lb/mmcf; PM10: 11.03 lbs/mmcf, and SOx: 0.64 lb/mmcf. During commissioning with water injection- NOx: 103.42 lbs/mmcf, all other factors remain the same. During normal operation: VOC: 3.13 lbs/mmcf, PM10: 11.03 lbs/mmcf, and SOx: 0.64 lbs/mmcf

Compliance with the NOx and CO emission limits shall be verified through CEMS data. If NOx and CO CEMS data is not available, NOx and CO emissions shall be calculated using fuel usage and the following factors- NOx: 10.27 lb/mmcf and CO: 15.16 lbs/mmcf during normal operations, and NOx: 7.66 lbs/start, 6.44 lbs/shutdown, CO: 8.58 lbs/start, 7.69 lbs/shutdown

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

A99.1 The 2.5 PPM NOX emission limit(s) shall not apply during commissioning, start-up, and shutdown periods. Commissioning shall not exceed 25 hours total, with no more than 5 hrs uncontrolled and no more than 20 hrs with water injection. Each start-up shall not exceed 15 min. Each shutdown shall not exceed 10 min. There shall be no more than 60 start ups per year in the first year of operation, and 120 start-ups per year thereafter. NOx emissions for the hour which includes a start shall not exceed 7.66 lbs, and for the hour which includes a shutdown 6.44.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

A99.2 The 6.0 PPM CO emission limit(s) shall not apply during commissioning, start-up, and shutdown periods. Commissioning shall not exceed 25 hours total, with no more than 5 hrs uncontrolled and no more than 20 hrs with water injection. Each start-up shall not exceed 15 min. Each shutdown shall not exceed 10 min. There shall be no more than 60 start ups per year in the first year of operation, and 120 start-ups per year thereafter. CO emissions for the hour which includes a start shall not exceed 8.58 lbs, and for the hour which includes a shutdown 7.69 lb.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D1]

A195.1 The 2.5 PPMV NOX emission limit(s) is averaged over 60 minutes at 15 percent O<sub>2</sub>, dry.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D1]

A195.2 The 6.0 PPMV CO emission limit(s) is averaged over 60 minutes at 15 percent O<sub>2</sub>, dry.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D1]

A195.3 The 2.0 PPMV VOC emission limit(s) is averaged over 60 minutes at 15 percent O<sub>2</sub>, dry.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D1]





## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A195.4 The 5 PPMV NH<sub>3</sub> emission limit(s) is averaged over 60 minutes at 15% O<sub>2</sub>, dry basis. The operator shall calculate and continuously record the NH<sub>3</sub> slip concentration using the following:

$$\text{NH}_3 (\text{ppmv}) = [a - b \cdot c / 1\text{E} + 06] \cdot 1\text{E} + 06 / b.$$

where, a = NH<sub>3</sub> injection rate (lbs/hr)/17(lb/lb-mol), b = dry exhaust gas flow rate (scf/hr)/385.3 scf/lb-mol), c = change in measured NO<sub>x</sub> across the SCR (ppmvd at 15% O<sub>2</sub>)

The operator shall install and maintain a NO<sub>x</sub> analyzer to measure the SCR inlet NO<sub>x</sub> ppmv accurate to plus or minus 5 percent calibrated at least once every twelve months. The NO<sub>x</sub> analyzer shall be installed and operated within 90 days of initial start-up.

The operator shall use the above described method or another alternative method approved by the Executive Officer.

The ammonia slip calculation procedures described above shall not be used for compliance determination or emission information without corroborative data using an approved reference method for the determination of ammonia.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C4]

A195.5 The 25 PPMV NO<sub>x</sub> emission limit(s) is averaged over 4 hours rolling at 15 percent O<sub>2</sub>, dry.

[40CFR 60 Subpart KKKK, 7-6-2006]

[Devices subject to this condition : D1]

A327.1 For the purpose of determining compliance with District Rule 475, combustion contaminant emissions may exceed the concentration limit or the mass emission limit listed, but not both limits at the same time.

[RULE 475, 10-8-1976; RULE 475, 8-7-1978]

[Devices subject to this condition : D1]

### C. Throughput or Operating Parameter Limits



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

- C1.1 The operator shall limit the fuel usage to no more than 4.50 MM cubic feet per day.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

- C1.2 The operator shall limit the fuel usage to no more than 400 MM cubic feet per year.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition and the records shall be made available upon AQMD request.

For the purpose of this condition, the yearly fuel use limit shall apply only during the 1st 12 months of operation.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

- C1.3 The operator shall limit the fuel usage to no more than 490 MM cubic feet per year.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

For the purpose of this condition, the yearly fuel use limit shall apply after the 1st 12 months of operation. The yearly emission limit shall be defined as a period of twelve (12) consecutive months determined on a rolling basis with a new 12 month period beginning on the first day of each calendar month.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

C1.4 The operator shall limit the operating time to no more than 7 hour(s) in any one year.

The 7 hours per year limit may include up to a half hour per month operating time to maintain engine readiness.

[RULE 1110.2, 6-3-2005; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1401, 3-4-2005]

[Devices subject to this condition : D6]

C157.1 The operator shall install and maintain a pressure relief valve set at 50 psig.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D9]

### **D. Monitoring/Testing Requirements**

D12.1 The operator shall install and maintain a(n) flow meter to accurately indicate the fuel usage being supplied to the turbine.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

[**RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

- D12.2 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : C4]

- D12.3 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature at the exhaust at the inlet to the SCR reactor.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : C4]

- D12.4 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : C4]



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

- D12.5 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the engine.

[RULE 1110.2, 6-3-2005; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1401, 3-4-2005]

[Devices subject to this condition : D6]



## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D29.1 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NOX emissions	District method 100.1	1 hour	Outlet of the SCR serving this equipment
CO emissions	District method 100.1	1 hour	Outlet of the SCR serving this equipment
SOX emissions	Approved District method	District-approved averaging time	Fuel Samples
VOC emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR serving this equipment

The test shall be conducted after AQMD approval of the source test protocol, but no later than 180 days after initial start-up. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at loads of 100, 75, and 50 percent.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA Method TO-12 (with pre concentration) and temperature of canisters when extracting samples for analysis is not below 70 deg F.

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior



**FACILITY PERMIT TO OPERATE  
SO CAL EDISON CO**

**SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

approval except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D1]

D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR serving this equipment

The test shall be conducted and the results submitted to the District within 45 days after the test date. The AQMD shall be notified of the date and time of the test at least 7 days prior to the test.

The test shall be conducted at least quarterly during the first twelve months of operation and at least annually thereafter. The NOx concentration, as determined by the CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60 minute averaging time period.

The test shall be conducted to demonstrate compliance with the Rule 1303 concentration limit.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D1]



## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D29.3 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
SOX emissions	Approved District method	District-approved averaging time	Fuel Samples
VOC emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment

The test shall be conducted at least once every three years.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at 100 percent load.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA Method TO-12 (with pre concentration) and temperature of canisters when extracting samples for analysis is not below 70 deg F

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.





## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D1]



## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D82.1 The operator shall install and maintain a CEMS to measure the following parameters:

NOX concentration in ppmv

CO concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis. The CEMS shall be installed and operating no later than 90 days after initial startup of the turbine, in accordance with an approved AQMD Rule 218 CEMS plan application. The operator shall not install the CEMS prior to receiving initial approval from AQMD.

The CEMS will convert the actual NOx and CO concentrations to mass emission rates (lbs/hr) and record the hourly emission rates on a continuous basis.

The CEMS shall be installed and operated to measure the NOx and CO concentration over a 15 minute averaging time period.

The CEMS shall convert the actual CO concentrations to mass emission rates (lbs/hr) using the equation below and record the hourly emission rates on a continuous basis.

CO Emission Rate, lbs/hr =  $K * C_{co} * F_d [20.9 / (20.9\% - \%O_2 d)] [(Q_g * HHV) / 10E6]$ , where

$K = 7.267 * 10^{-8}$  (lbs/scf)/ppm

$C_{co}$  = Average of 4 consecutive 15 min. average CO concentrations, ppm

$F_d$  = 8710 dscf/MMBTU natural gas

$\%O_2, d$  = Hourly average % by volume O2 dry, corresponding to  $C_{co}$

$Q_g$  = Fuel gas usage during the hour, scf/hr

HHV = Gross high heating value of the fuel gas, BTU/scf

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

### E. Equipment Operation/Construction Requirements



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

E144.1 The operator shall vent this equipment, during filling, only to the vessel from which it is being filled.

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : D9]

E162.1 The operator shall use this equipment only during utility failure periods, except for maintenance purposes.

[**RULE 1110.2, 6-3-2005; RULE 1304(c)-Offset Exemption, 6-14-1996; RULE 1401, 3-4-2005**]

[Devices subject to this condition : D6]

E179.1 For the purpose of the following condition number(s), continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour..

Condition Number D 12- 2

Condition Number D 12- 3

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : C4]

E179.2 For the purpose of the following condition number(s), continuous monitoring shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour.

Condition Number D 12- 4

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : C4]



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

E193.1 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

In accordance with all mitigation measures stipulated in the Negative Declaration prepared for this project (CEQA State Clearinghouse No. 2006121112).

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition : D1, C4, D6, D9]

E193.2 The operator shall operate and maintain this equipment according to the following specifications:

The TA Luft carburetor settings shall be maintained at all times

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : D6]

### **K. Record Keeping/Reporting**



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

K40.1 The operator shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of concentration (ppmv) corrected to 15 percent oxygen (dry basis), mass rate (lb/hr), and lb/MMCF. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).

All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), the flue gas temperature, and the generator power output (MW) under which the test was conducted.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D1]

K67.1 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Commissioning hours and type of control and fuel use

Date and time of each start-up and shutdown

Natural gas fuel use after the commissioning period and prior to CEMS certification

**[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D1]



## **FACILITY PERMIT TO OPERATE SO CAL EDISON CO**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

K67.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Date of operation, the elapsed time, in hours, and the reason for operation. Records shall be kept and maintained on file for a minimum of two years and made available to district personnel upon request

[RULE 1110.2, 6-3-2005; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1401, 3-4-2005]

[Devices subject to this condition : D6]